PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 458 (SILVER HILL ROAD) AND MD 218 (SUITLAND ROAD) IN PRINCE GEORGE'S COUNTY.

MD 458 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION:

A SYSTEM READY BASE-MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE. MD 458 THROUGH-MOVEMENTS OPERATE CONCURRENTLY OR WITH THE EXCLUSIVE LEFT TURNS. THE EXCLUSIVE / PERMISSIVE RIGHT TURNS WILL OVERLAP, OPERATING WITH MD 458 LEFT TURNS. MD 218 MOVEMENTS OPERATE IN A SPLIT PHASE.

VIDEO CAMERAS SHALL ACTUATE PRESENCE DETECTION AND NON-INVASIVE DETECTORS SHALL PROVIDE ADVANCE DETECTION ON MD 458. VIDEO CAMERAS PROVIDE ADVANCE DETECTION FOR MD 218.

AUDIBLE PEDESTRIAN PUSHBUTTON SYSTEM SHALL BE PROVIDED FOR PEDESTRIAN MOVEMENTS TO CROSS ON ALL FOUR APPROACHES. THE

EXISTING INTERCONNECT CABLES SHALL BE RE-ROUTED TO THE NEW CONTROLLER/CABINET.

SIGNING WILL BE UPDATED TO CURRENT STANDARDS. THE EXISTING RAMPS SHALL BE RECONSTRUCTED TO BECOME ADA COMPLIANT.

AUDIBLE PUSHBUTTON FUNCTION IS AS FOLLOWS:

1. When pedestrian locates and presses pushbutton for extended time, the pushbutton unit message will annonce the following message:
   - FOR SOUTH LEG "Wait to cross Suitland at Silver Hill"
   - FOR NORTH LEG "Wait to cross Suitland at Silver Hill"
   - FOR EAST LEG "Wait to cross Silver Hill at Suitland"
   - FOR WEST LEG "Wait to cross Silver Hill at Suitland"
2. When the "WALK" phase begins, the message will be a rapid tick, which will last for the duration of the "WALK" phase.

III. SPECIAL NOTES:

THE CONTRACTOR SHALL PURCHASE AND DELIVER THE NAVIGATOR CENTRAL CONTROL UNIT FOR CONTROLLER TO SHA SIGNAL SHOP, AT 7491 CONNELLEY ROAD, HANOVER, MD, 212076. MR. EDWARD RODENHIZER AT 410-787-7652 SHALL BE CONTACTED AT LEAST 3 DAYS PRIOR TO THE DELIVERY.

PROJECT CONTACTS:

1. THE CONTACT PERSONNEL FOR THIS PROJECT ARE AS FOLLOWS:

   MS. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC
   PHONE: (301) 513-7358

   MR. DUANNE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
   PHONE: (301) 513-7316

   MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
   PHONE: (310) 513-7304

   MR. VICTOR GRAFTON, UTILITY ENGINEER
   PHONE: (310) 513-7350

   MR. RICHARD DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
   PHONE: (410) 787-7630

   MR. EDWARD RODENHIZER, CHIEF SIGNAL SHOP
   PHONE: (410) 787- 7652

   MR. SONNY BAILEY, CHIEF SIGN SHOP
   PHONE: (410) 787- 7676

   THE POWER COMPANY REPRESENTATIVE:

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

BY: Jhenkel

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

CAT CODE	DESCRIPTION	QUANTITY
900000	LOCAL CONTROLLER , VIDEO INTERFACE UNIT W/ ALL NECESSARY EQUIPMENT HOUSED SIZE '6' BASE MOUNTED CABINET	1 EA
900000	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	108 SF
2 EA	R3-5L "LEFT ONLY" 30"x 36" MAST ARM MOUNT	
2 EA	R3-5R "RIGHT ONLY" 30"x 36" MAST ARM MOUNT	
1 EA	M1-5(4) (78"x 36") MAST ARM MOUNTED "Silver Hill RD, SOUTH (LEFT ARROW),MD 458, NORTH (RIGHT ARROW)"	
1 EA	M1-5(4) (78"x 36") MAST ARM MOUNTED "Silver Hill RD, NORTH (LEFT ARROW),MD 458, SOUTH (RIGHT ARROW)"	
2 EA	D-3 (VAR x 16") MAST ARM MOUNTED "Suitland RD."	
	M1-5(6) SHIELD ASSEMBLY (30"x 51") MAST ARM MOUNTED	
1 EA	WEST,MD 218, NORTH (RIGHT ARROW)"	
1 EA	WEST,MD 218, NORTH (LEFT ARROW)"	
	R10-3(1) PUSHBUTTON SIGN 9"x 15" POLE MOUNT	
4 EA	"TO CROSS SUITLAND ROAD"	
4 EA	"TO CROSS SILVER HILL ROAD"	

EQUIPMENT LIST "B"

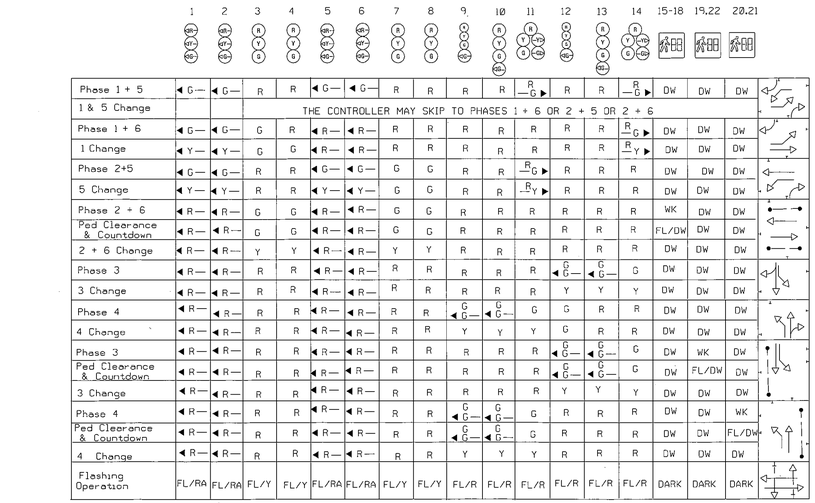
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
2002	6 CY	TEST PIT EXCAVATION
5004	800 LF	12" HEAT APPLIED PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	230 LF	24" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	206 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKINGS
6001	220 LF	TYPE A COMBINATION CURB & GUTTER, 12" GUTTER PAN, 8" CURB
6002	1325 SF	5 INCH CONCRETE SIDEWALK
8001	1 EA	2-WIRE CENTRAL CONTROL UNIT
8003	6 EA	8" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8007	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
8008	6 EA	BREAKAWAY PEDESTAL POLE - ANY SIZE
8013	8 EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
8015	1 EA	MAST ARM POLE & 38' MAST ARM, 15' "T" DIM.
8016	1 EA	MAST ARM POLE & 60' MAST ARM, 15' "T" DIM.
8018	2 EA	MAST ARM POLE & 50' MAST ARM, 15' "T" DIM.
8020	6 EA	NON-INVASIVE PROBES ANY LENGTH LEAD-IN CABLE
8021	1 EA	REMOVE & DISPOSE MATERIAL AND EQUIPMENT PER JOB
8025	6 EA	VIDEO CAMERA & ANY LENGTH CABLE
8031	835 LF	DISCONNECT, PULL BACK & RE-ROUTE EXISTING CABLES
8034	260 LF	SCHEDULE 80 PVC CONDUIT UP TO 4" -SLOTTED
8035	380 LF	SCHEDULE 80 PVC CONDUIT UP TO 4" -TRENCHED
8037	94 SF	DETECTABLE WARNING SURFACE
8038	108 SF	INSTALL OVERHEAD AND GROUND-MOUNTED SIGNS INCLUDING HARDWARE
8039	138 SF	REMOVE AND REINSTALL DECORATIVE BRICK SIDEWALK
8040	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDED (100 AMP)
8044	300 LF	CABLE 1-CONDUCTOR, NO. 4 AWG-THHN/THWN
8045	40 LF	CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN
8046	11 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	44 EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8054	1260 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	1380 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	2400 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

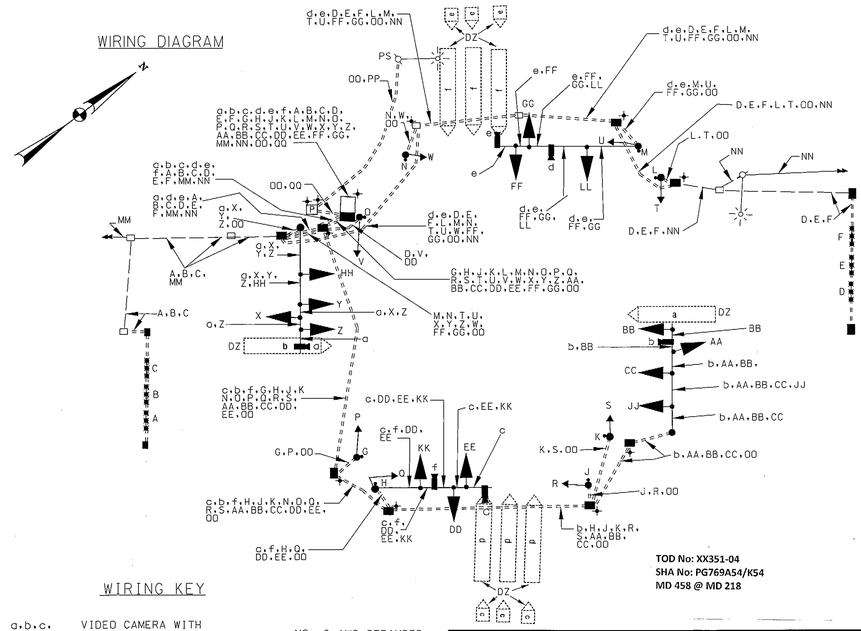
EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART



WIRING DIAGRAM



TOD No: XX351-04
SHA No: PG769A54/K54
MD 458 @ MD 218

WIRING KEY

g.b.c. d.e.f	– VIDEO CAMERA WITH LEAD-IN CABLE TO CONTROLLER	OO	– NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
A.B.C. D.E.F	– NON-INVASIVE PROBES WITH LEAD-IN CABLE TO CONTROLLER	PP	– NO. 4 AWG, THHN/THWN ELECTRICAL SERVICE CABLE
G.H.J.K. L.M.N.O	– 3-CONDUCTOR (NO.14AWG) ELECTRICAL CABLE	QQ	– NO. 8 AWG, THHN/THWN ELECTRICAL SERVICE CABLE
P.Q.R.S. T.U.V.W	– 5-CONDUCTOR (NO.14AWG) ELECTRIAL CABLE	DZ	– DETECTION ZONE
HH.JJ	– 5-CONDUCTOR (NO.14AWG) JUMPER ELEC. CABLE	PS	– PROPOSED UNDERGROUND SERVICE FEED
X.Y.Z.AA. BB.CC.DD. EE.FF.GG. KK.LL	– 7-CONDUCTOR (NO.14AWG) ELECTRICAL CABLE	+	– GROUND ROD
MM.NN	– EXISTING INTERCONNECT CABLE TO BE PULLED BACK AND RE-ROUTED		

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (410) 823-8070 Fax: (410) 823-2184

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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 458 (SILVER HILL RD)
AND MD 218 (SUITLAND RD)

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 2/12/10 CONTRACT NO. XX3515168

DESIGNED BY EMM COUNTY PRINCE GEORGES
DRAWN BY EMM LOGMILE 16021801.64
CHECKED BY EMM/TMH 2/24/10 TIMS NO. K-031
F.A.P. NO. TOD NO.

TS NO. 246F-GI | DRAWING SG2 – 2 OF 2 | SHEET NO. 2 OF 2